From: "Mochrie, Paul" <Paul.Mochrie@vancouver.ca>
To: "Direct to Mayor and Council - DL"
Date: 5/31/2023 11:34:27 AM
Subject: Questions re Motion: Ensuring Healthier Climate-Smart Homes

Good morning Mayor and Council,

I am writing to share the following information provided by staff in response to questions regarding the motion that Council will be considering later today:

1. The staff comments made note of aligning with the new Zero Carbon Performance step in the Step Code. Does this step preclude the use of natural gas for cooking?

Staff response` No, the top step of the Zero Carbon Step Code does not preclude the use of natural gas for cooking. Aligning with Zero Carbon Performance step would further lower emissions from all types of new residential construction in Vancouver. The Zero Carbon Step Code gives builders the option of choosing performance- or prescriptive-based carbon emission requirements. The performance option allows for the use of fossil natural gas for cooking. The prescriptive option does not allow the use of fossil natural gas for cooking.

2. Also: Is there any difference in this Zero Carbon step between RNG and natural gas?

Staff response – The Zero Carbon Step Code allows local governments to decide if they want to recognize RNG as a compliance option. There isn't currently an RNG offering that would be secured for the life of a building, so currently we can't recognize RNG as a compliance option.

3. And does adopting the top step of the BC Zero Carbon Step Code mean that the lesser net zero steps are no longer an option (i.e., the flexible net zero steps which are source neutral and outcome based)?

Staff response – Vancouver's current energy codes are similar to the Strong and Zero Performance Carbon Step code so technically industry would have no issues complying with this motion. All of the steps on Zero Carbon Step Code have performance based options – the higher the step means the lower the allowed carbon emissions.

4. Also: What about the potential future use of hydrogen piped into homes for cooking etc.? If there are no hookups or piping infrastructure allowed in new buildings this would seem to complicate any future use of hydrogen as a clean fuel.

Staff response – We don't see hydrogen as a significant source of energy in buildings based on the cost and availability relative to other zero emissions alternatives. Also, exceeding relatively low blends of hydrogen (e.g. 5-15%) would require significant upgrades to the gas pipelines and equipment so its unlikely hydrogen will replace natural gas at scale for buildings. For buildings constructed without gas hookups, the lack of access to hydrogen isn't expected to be a problem because they would already be zero emissions buildings. That said, if a developer wanted to include a connection for a potential future supply of hydrogen, which would still be an option under the Zero Carbon step.

Best,
Paul